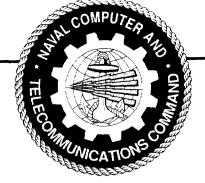


Chips Cover Story



Naval Computer

Telecommunications Command Commander

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Director, Defense Information.

Editorial

I'm hooked on the entertainment the grocery stores provide to take my mind off the agonizingly slow safari to the cash register. Pulitzer prize winning stuff it isn't, but on a lonely Saturday morning, it suites me just fine. I am, however, getting a little bored reading about Elvis pumping gas in an Tibetan Monastery.

Even though my mental capabilities only slightly exceed those of a competent three-year old, I'm still able to digest the astounding impact of these headlines at lightning speed. When boredom sets in, I do brain-stem exercises by writing my own headlines for the National Enquirer and the Star.

Would you like samples of my work? 'Course you would. What else do you have to do?

- Hybrid Life Form Eats Pentagon.
- · Alien Microbes Invade Military Food Chain.
- Single-Cell Life Forms Found in Pentagon Secret Vault Thought to be the Very Beginning of DoD.

Obviously, my interview with Paul Strassmann has made its way into my Saturday morning surreptitious manipulation of the National Enquirer headlines. Not following? That's OK. I'll take it slow.

DISA is a hybrid life form composed of the best the individual services and agencies have to offer in a myriad of different disciplines. Therefore, while DISA may not be actually eating the Pentagon (high fat content), it's sure taking in a few healthy nibbles from some individual rice bowls.

My food chain crack obviously refers to our budgets. The microbes belong to Congress, and they're getting fatter as they ingest our dollar resources. And who can prove single-cell life forms don't exist in the top-secret vaults?

Am I down on the DISA concept? No! I'd vote in favor, assuming anyone cares how I'd vote, which they don't. What I'm worried about is how do we get there from here?

The chasm between what Mr. Strassmann is talking about (interview starting on page 4) and the here and now makes the Grand Canyon look like a shallow depression in the road bed. I acknowledge that the Big D concept (DISA/DECCO/ DITSO/DFAS and some smaller Ds I haven't stumbled across yet) should have happened a long time ago.

As rational tax-paying individuals, all of us agree we need to save money. We read the magazine and newspaper articles that say the Pentagon wastes bunches of bucks on war toys every year. Cut down! Cut back! Don't spend my money on useless junk. Yeah!

However, as less than rational individual federal employees and uniformed military with families, we're worried what the birth of DISA is ultimately going to mean to our paychecks.

When DECCO takes over microcomputer acquisition, what happens to the folks who perform those functions for the Army, Navy, Air Force and DLA?

When DISA starts leasing micros, what happens to the folks who handle order processing? When Mr. Strassmann's diagnostic network goes on line, what happens to the folks who do technical support? When DITSO takes over the technical control of whatever DITSO is going to control, what happens to the folks who are doing those jobs now?

My big complaint about DISA is the same complaint I've had with the Government for 25 years. No one in power thinks it's necessary to tell the average employee what's happening. The mushroom concept applies. Rumors, mostly false, abound.

I like being fair to both sides, so I'll acknowledge that the entity known as DISA doesn't know what's going to happen in many cases.

What I want is for the people in control to talk to us, speculate on the future, offer alternatives, come out from behind the veil of secrecy. Even if all the details aren't locked in concrete and might change, we'd like to know what the current thinking is. Who knows, maybe we could help.

Enquiring minds have the right to know.

Diane Hamblen

October Hot Spots



Chips recently had the opportunty to talk to Paul A. Strassmann about what DISA will ultimately mean to us.

Page 4

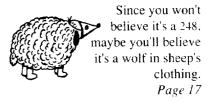
Had your share of frustration with the Autovon system? You're not alone. Here are a few explanations on why things go wrong. Page 8



Fleet Support: The Message Center says you can use floppy diskettes to send and receive messages. Need some help? Page 11

Computer Acquisition Program Tracking System

Page 15





Starting in this issue, Chips will have a regular column devoted to communications issues. The column

will contain the latest information available. If you have questions, suggestions, compliants or praise, the phone numbers are listed on

Page 19.

Paul Strassmann: Turning our upside down world right side up

By Diane Hamblen

Usually the budget and administration realm of DoD doesn't offer much hot news. However, since Mr. Paul Strassmann, Director of Defense Information, started righting our skewed world, it's *the* topic.

Government Computer News, Federal Computer Week and every other computer trade journal have printed numerous speculations about who is going to do what to and for whom when the Defense Information Systems Agency (DISA) becomes central manager of the defense information infrastructure. Since the media have no official government ties, they're free to speculate away. As an official government magazine, we can only talk about what has been signed into reality. No speculation allowed - at least nothing overt.

I went to Mr. Strassmann's office hoping for the specific nuts and bolts of the Defense Management Report Decision 918, Subj: Defense Information Infrastructure, the infamous DMRD 918. Mr. Strassmann declined to discuss the document's guts, preferring not to upstage Assistant Secretary of Defense Andrews.

What Mr. Strassmann did give me was insight into his motives and methods for this massive DoD reorganization. As he put it, "In the past when DoD has cut the budget, we've pulled teeth. This time we're going to cut the administrative tail."

Mr. Strassmann promised me a return engagement after 918 is born. In the meantime....

Chips: When DISA finally goes on line with the majority of the support functions that have traditionally belonged to the individual services, what is it going to mean to the men and women in the ships, tanks and trenches? Are they going to actually feel the difference?

Strassmann: I'm very glad you're asking that question because it gives me the opportunity to talk about the general philosophy of information management. What has to be understood is that information is



Paul A. Strassmann is the Director of Defense Information in the office of the Assistant Secretary of Defense (Command, Control, Communications & Intelligence, C3I).

Prior to joining the Defense Department, Strassmann was president of Strassmann, Inc., a management consulting firm; president of The Information Economics Press; and principal of Management Tools and Information Services, Inc., a research consortium in Boston, MA.

From 1969 to 1985, Strassmann served in a number of key positions with Xerox Corp., retiring as vice president of strategic planning for the corporations' Information Products Group. While at Xerox, he also served as corporate director for

worldwide computer, telecommunications and administrative functions (1976-77) and general manager of the Information Services Division (1972-76) which included all central computer operations, telecommunications networks, administrative services, software development and management consulting services. Before joining Xerox, Strassmann held the job of chief information systems executive for General Foods Corporation and afterwards for the Kraft Corporation.

An author and lecturer, Strassmann has taught at a number of institutions, including the Imperial College, London; the International Executive Forum; and the Graduate School of Business at the University of Connecticut. Among his many published works is the 1985 book, Information Payoff-The Transformation of Work in the Electronic Age and in 1990, The Business Value of Computers.

Among his other activities, Strassmann has served on the editorial boards of *Information and Management, Information Management Review, Journal of Information Technology* and *Technology & People Journals*, as well as the advisory board of Syracuse University.

Strassmann earned an engineering degree from the Cooper Union, New York and a master's degree in industrial management from Massachusetts Institute of Technology.

management and management is really an issue of how you govern. In a civilized society, you must have certain rules and certain order and certain expectations in the infrastructure so that in the privacy of your home you are not bound by the government. The reason that you can buy a toaster with confidence is that some utility has seen fit to put in the power grid and transformers and made sure the voltage doesn't fluctuate.

The bottom line so far as I'm concerned is that in standardizing the infrastructure, we will make it possible to move over 80 percent and perhaps as much as 90 percent of the computing power out to the consumer.

The underlying direction of the executive level group which I served on prior to coming here was to make the awesome computing power available to the platoon leader or an executive officer on a small frigate and to have all the resources and all the data available and consistent. He shouldn't have to fill out the same forms over and over with the same name, same social security number, same pay grade on all of those forms. We have 10,000 forms. None of them are compatible.

So, I want to very emphatically answer your question about what it all means. It means that we are going to regulate and retain certain important rights at the DoD level which are the compatibility of data, infrastructure and communications. The objective is to move com-

puting power all the way down to the lowest level where it is consumed.

Chips: How is the decentralization of the computing power going to work on a reimbursable basis?

Strassmann: The only way you can have freedom for the individual if you're a market economy, and this is the American way, is for the customer to be able to make a decision. The customer can spend his budget buying shrubbery or buying more information or going without information. Ultimately, you cannot have decision makers sitting in the Pentagon deciding what screen someone may want to look at at midnight on 21 January in the year 2002. Those people should have a choice on what screen they want to look at or if they want to look at a screen at all.

If they have the mechanism to make a decision, they can buy as they choose. This is the American way; this is decentralization. It's the market economy.

Chips: For many years, the majority of the military community has existed on the principle of mission funding. Will it be difficult for them to adapt?

Strassmann: As long as we were engaged in wholesale war with one enemy, such as the Soviet Union, you could run your warfare

from a central command. You were basically moving chess pieces. With low intensity warfare, it's the lieutenant going down the street in a HumVee who has to make decisions. That lieutenant in that HumVee must have a computer so he can decide whether to continue driving, redeploy, ask for help or attack.

He needs an enormous amount of information such as what ammunition is coming or whether the rifleman has really been trained to launch certain kinds of missiles.

Editor's Note: Some government activities are accustomed to working on a reimbursable basis. That's particularly true in the Navy computer and telecommunications activities where the Navy Industrial Fund philosophy was adopted in 1985.

Chips: How will you separate administrative ADP from tactical ADP?

Strassmann: There's no difference. When I'm deployed, I have to know where my ammunition is, where my backup supply is, the state of my aircraft readiness and the weather forecast. One computer has to tell all that.

Chips: Are the armed services complaining about the scope of functions that DISA is planning to absorb? What do the services feel they should retain?

Strassmann: We have had debates, and it isn't just the services. There are debates because people don't trust the system.

If the electric supply isn't very reliable and you have intermittent failures, you're going to buy yourself a gasoline generator and keep it on standby because you don't trust those guys in the utility. Trust becomes the important unit.

The way information flows in DoD right now there isn't much trust because everyone takes care of themselves. That's the way mankind has been for most of its history. The very idea of having a civilized society is being able to go to the supermarket for a quart of milk. There is a whole structure behind it. For you to walk into a supermarket and buy a quart of milk is a giant achievement of trust. Thousands of people had a role in that quart of milk. We'll have to earn that level of trust like all other trusts that exist everywhere.

Editor's Note: Judging from some of the early replies to the DMRD 918, the "debates" that Mr. Strassmann referred to are fairly heated concerning the definition or the very existence of "tactical ADP."

Chips: What about the security across our LANs and within our PCs?

Strassmann: It becomes vital because our networks become the prime target for an adversary of the United States. However, we must stop trying to achieve security by taking a particular machine and tempest proofing and debugging it. That can't be done so simply. That's why they haven't done it. Security is systems wide. You have to start with an architecture, and you have to design security into the network. You're not going to have a secure work station. Work stations have slots where anyone can slip in a diskette. You're dead right there if someone uses it to extract forbidden info or slip in a virus or worse.

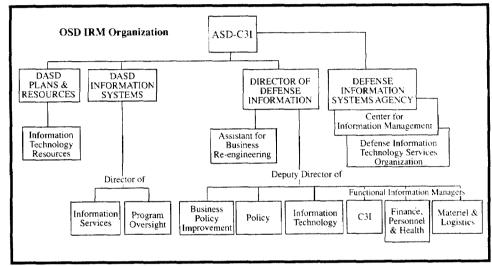
We have to start with a secure design for

Chips: What is the future of our microcomputer umbrella contracts? Are there going to be anymore huge microcomputer contracts?

Strassmann: Prices are dropping at the rate of 6 percent per month. We can't have big contracts with prices dropping like pork bellies when there is lots of corn around. You can't do that. You can't have three-year contracts.

Chips: How are we going to procure micros?

Strassmann: After the 918 is signed, I'll explain that to you. For now I'll tell you, we're going to buy micros the way we buy commodities - on the spot market in small quantities. If you need some, we'll buy you some and ship it to you Federal Express.



a secure network. We also need authorization. In other words, I can only offer you security if there is a gatekeeper who knows when you sign off and on and can verify your signature. I must have a system for gatekeepers. To try to isolate and secure one PC, is nonsense.

One of the primary justifications for CIM is security. There are physical security issues where someone comes in and blows the thing up. One of the reasons we're centralizing is that we have 1700 data centers. There isn't enough money in the DoD budget to harden 1700 centers. Forget about it. What you have to do is pick a few baskets, put the eggs in those few baskets and watch those eggs. We must design a system where any one of those baskets can die or any two or three, and you will still survive.

Chips: Aren't we consolidating and putting our eggs in that basket before we have created the method for watching the eggs?

Strassmann: I'm not going to sign up to anything that would conform to what you said.

The technology cycle is two years. If it takes you five years to get a contract in place, you've already lost. I've just taken a look at the age distribution of some of our mainframes we bought seven years after they were introduced. A mainframe on a seven-year cycle means it's just about ready to be junked from a technology standpoint. We buy it for top dollar, and then we keep it another 14 years. That is not smart.

We have over 600 acquisition points for micros. Buying micros is providing much employment in this town. Look around this building and watch what people do. They're filling out GSA forms.

Don't lay all of the acquisition protests on the vendors. There are lots of willing people who keep very employed for a long time writing these specifications. That's just not a good way to save money.

Chips: A lot of people are worried about these massive consolidations and personnel shifts. What are you going to do with the people displaced by the consolidations?

Strassmann: In drawing down the Department of Defense, we'll end up with 600,000 fighting people. Maybe less. Who knows. The issue is what's called a tooth to tail ratio. The Marines understand.

There will only be so much cash. The question is: Will we have the money for fighting power or will we have the money to support paper pushers? If I have anything to say about it, we will free the money that today is spent on non-defense overhead and use it to maintain our military strength.

In years past, the reaction to budget reductions was: Let's cut B2s and make fewer tanks. Let's take down another 120 ships. Let's pull our teeth.

That isn't the way to manage a draw down. The way you manage a draw down is to cut the overhead. The administrative tail is there because we've tolerated it. The underlying idea of CIM is to look at the overhead costs.

Chips: Has implementing the CIM structure been more difficult than you anticipated?

Strassmann: It's easier. We are way ahead of where I expected we'd be a year and a half ago. This is a delightful place. This is the first time the chairman of the board has given me exact goals such as, "We're going to cut this much, and this is where it's coming from." Or have the chief operating executive, which is the Chairman of the Joint Chiefs of Staff, say, "By the way, this is the kind of a fighting system I need." I didn't get that in Xerox. Here they tell you what they expect. They don't know exactly how to do it, although they have some ideas. For the first time in 35 years, I've had it laid out for me.

Of course someone has to know how to carry out the details. If you don't have clear objectives, hard work won't get you there. This is the best job I've ever had.

There is less politics here than there was at Xerox. Let me tell you why. At Xerox the bonuses were big. Here we all get paid the same way. You can't make a killing. People aren't here to get rich. This is sort of a genteel organization - with some exceptions. I just want everyone to know DoD is just delightful.

Chips: Look at what you've accomplished with the CIMs. DFAS is off and running and the medical people are doing it. Even DLA is a year ahead of schedule. Why is the computer community behind?

Strassmann: That's easy. Functions come first; computers come second. We first have to straighten out the objectives to know what we're doing. Computers come last. The problem for the last 20 years is that computers came first, and then you were looking for solutions. CIM puts it the other way around. CIM says, "After we know what we're going to do, then we'll look at computers."

Editor's Note: DFAS' principal role is to meet day-to-day payrolls, bill paying and accounting record postings for the Department. DFAS is also the primary agent to analyze the financial business area to streamline how the Department does its financial business. This includes eliminating non-value-added actions and processes through improvement of business practices. This will take into account changing technology, changing requirements and changing policies which have been instituted or are being directed since the time

current processes were developed. Extracted from the Status of the CIM Initiative, April 92.

Chips: Why has the Navy been slow in consolidating their DPIs?

Strassmann: The \$235M they're going to make is not the big money for CIM. The Navy is behind, but they came up with a good plan. But DPI consolidation is about 1.5 percent of the total \$71 billion target. The big money is functional money. The big money isn't computer savings. The big money savings are logistics, supply, inventory, medical, clerical and administrative. Computers will support whatever they will need.

We have frozen the growth of computer expenditures in DoD while the rest of the government has gone up 23 percent. We are now down \$760M with or without Navy consolidation.

The Information Centers are part of the attempt to give the consumer the capability to be a customer. We are leaving programmers and support people at all the bases so those people can locally do their own applications. We're going to bless much of the bootleg stuff. A large share of the really useful applications in DoD is bootleg.

The Army, Air Force and Navy look up to CIM and say, "You want to centralize everything." When you look down they are the biggest centralists you ever saw! We are trying to eliminate the unproductive middle. We are trying to centralize things so you don't need all this middle flow so that people down on the receiving end can really accomplish something useful.

Chips: What would you like to personally tell the people who man our ships, planes and tanks?

Strassmann: When the 918 is signed, I'll give you a good interview. What you can tell the troops is that the underlying idea is to create an infrastructure with coherent data and coherent standards so that the people can have more power. That's the message I want to convey.

Chips: As CIM really gears up and you start to absorb more functions and more people, are you going to physically consolidate people?

Strassmann: No! I don't believe in consolidation. That's the last thing to do. When we took over the computer assets of the Defense Finance and Accounting Service (DFAS), I said, "What's the best place given the standard of living and community relations that's the furthest from Washington?" People said, "How about Colorado?" and I said, What a great idea."

When the Defense Information Technology Services Organization (DITSO) was created there was an MOU that the headquarters would be in Crystal City. It ended up in Denver. I believe in having things in the mid-west, the south and distributed. I don't believe an organization should be so big that the commanding officer can't know everyone's name. I believe we should be in small communities close to educational institutions where the quality of living is good. If it works where it is, I'll leave it alone. Why move. It's costly and disrupts people. We'd have real problems. Why shuffle people. I don't believe in moving people when we don't have to. For example, my wife stayed in Connecticut. She didn't want to come to Washington so I commute now.

We are going to invest in a very superior communications system. Rather than move people into some big building here in Washington. I believe much of the work must be done electronically.

Editor's Note: According to Federal Computer Week, Aug 24, 1992. "DITSO was established May 10th as a fee-for-service utility, operating processing centers and CDAs transferred to it from DFAS and DLA. DITSO plans to develop standard hardware, software and tools for these centers, including software engineering tools for use in all its centers. Denver-based DITSO expects the new centers will bring an extra 4500 military and civilian staff under its wing by Oct. 1."

Chips: How close are we to having a fully computerized end-to-end method of buying computers, including electronic signatures?

Strassmann: It's off for a while. DLA actually does it now with small contracts. The Defense Communications Contract Office (DECCO) is going to be the purchasing agent for DISA and will be located at Scott AFB. They have the infrastructure, Scott AFB is the right place for them, and they have the skill and leadership.

With the proper diagnostics network in place, someone will be able to tell if your terminal is up or your modem is down. When you go down they will know it before you do.

Chips: If we're going to have the capability of transferring information from end to end without any hand holders in between, isn't absolute standardization mandatory?

Strassmann: You've got it! As a matter of fact, the 918 is really a huge decentralization effort.

Chips: Will DECCO also control the help desks (technical support)?

Strassmann: No. That's network control. They'll be control for contracts and requirements, yes. But not the help desk for the network, particularly for helping people and for teaching and education. That's a separate issue.

Editor's Note: I tried to finesse my way back into the 918 but Mr. Strassmann was too quick. Chips: Micro education is going to come under the National Defense University isn't it? Strassmann: My, you do have a very early version of the 918, don't you. You're about six versions behind. Chips: Ah well, I thought I might be one or two ... Strassmann: (Obviously enjoying himself) No, you're way behind. There are two ways of keeping secrets or protecting software. Because everyone copies software, if you're a manufacturer, you either button it up, which is hard to do, or you change it so often that people just give up. We did the latter.

Chips: Who is going to handle the actual contract customer who buys a PC?

Strassmann: First of all you're not going to be buying PCs. You're going to lease PCs from DISA. They are going to be responsible for technology. If your leased PC goes down, they will check and see if you've pulled out the pins. We'll do a remote diagnostic and loop tests. Perhaps we'll find the motherboard is gone. Most likely you didn't provide proper circuit protection and you had a storm. Now you have a dead PC. We're going to ship you a new one by Federal Express. You'll unpack it and put your dead one into the same box and ship it back. That's only six months in the future.

Once you're on the network, network control is going to watch you all the way down to the keyboard. Network control won't be able to look at the contents of what you're doing, but electronically they will be able to validate that you're authorized to have that technology revision and that you're authorized to create data and update files.

American Express does it to every reader, in every store. American Air Lines does it, and every banking terminal is done that way. The first batch of networks will have this capability in six months.

Chips: How will PC leasing work?

Strassmann: DISA will have a price list. Similar to a GSA schedule. You can get a short- or long-term lease. Not only will they lease you the equipment, they'll maintain it. They'll guarantee the up time for your machine. If you want an upgrade, most likely we'll give it to you.

The big cost is maintenance. It's expensive to make a maintenance call. It costs about \$200 per call. We intend to do depot maintenance the way Dell does. Dell is the fastest growing computer company in the United States because they're doing superb customer service.

The machines we're going to buy are the ones we can upgrade. Because if we own it, we should have that machine out there for eight years. Which means we should put it through two or three technology lives. We're going to buy chips and populate the boards with new technology every two or three years.

All the systems will be compatible open systems. And they'll have the circuitry so we can do remote diagnostics in order to save maintenance costs.

Chips: If I lease my PC from you, can I call you and tell you I want a new Macintosh and you'll just send it to me?

Strassmann: Yes, if the Macintosh is on the approved list as an open system, and we know the job you're doing requires it. For example, if you generate data entries, we download the approved software to you. What you do with your local applications is your problem, but while you're on the job and generating payroll entries or financial or technical engineering data, that software will be under central control.

Chips: When you say central control, that's an enormous operation. What kind of network is going to handle this? Who's going to operate it, and where is it going to be housed?

Strassmann: It's going to be an ATM network. It's a packet switch, multiplex network based on the latest technology. It won't be circuit switching. It's going to be housed in hardened sites. They will have to guarantee the authenticity of the financial entries. They're issuing money based on that thing. They can't just sit there and get E-Mail messages, "Send me another \$1,000,000." They can't do that. This is like the banking business. The essence of the DoD network of the future will be guaranteed security and reliability.

Turn the page for a closer look at DISA and the reorganization.

7

October 1992